

GO BEYOND BOUNDARIES



Medical Sciences

UNDERGRADUATE GUIDE



→ **1ST IN THE UK**
FOR ANATOMY
& PHYSIOLOGY

The Times & Sunday Times
Good University Guide 2024

Welcome

It is my hope that you will join our dynamic and friendly community, and enable us to help you achieve your aspirations and potential. We pride ourselves in world-leading excellence in both teaching and research

As a medical sciences student at the University of Aberdeen you will be part of the School of Medicine, Medical Sciences & Nutrition. As our teaching is research-led you will be taught by some of the top academics in the UK, delivered in the best possible environment with access to world class facilities.

We offer a range of degrees, and many choices within these, allowing you to shape your study to suit your career aspirations and interests. Our exciting curriculum and the opportunities we provide for you to enhance your transferable skills and employability, mean that when you graduate you will leave this University empowered and with the right skill set for the next stage of your career.

I hope you enjoy reading about the opportunities there are for you in the School.



Professor
**Siladitya
Bhattacharya**
Head of School

Your learning experience

The diversity of subjects and flexibility of our degrees allows students to explore different subject areas before specialising in their chosen discipline.

Our degree programmes are built to enhance your employability. All our honours disciplines offer the following features highly relevant to your future job prospects:

- a three month full time research project in the final year as standard;
- an optional industrial placement year and graduation with a Masters (MSci), and;
- highly relevant and sought after experience in Bio-business.

All medical sciences BSc Honours degrees follow the traditional Scottish four year structure. Typically, you will take a selection of courses in your first year from a broad range of subject areas, giving you the opportunity to expand your academic experience.

The key advantage to this four year system is that it allows a substantial level of flexibility meaning that you can defer your ultimate degree subject choice because the requirements for first year are largely the same for all degrees. You are then in a stronger and more informed position to make the correct judgement about which area you will specialise in.

How you are taught

A variety of teaching methods and styles are used to make the teaching engaging, exciting and responsive to the latest research in that subject area. The research we carry out in the School directly informs and guides our teaching, particularly in the final Honours year. During years 1, 2 and 3 students undertake their practical classes in our dedicated teaching laboratories. As a student, your learning is supported by MyAberdeen, our virtual learning environment from which you can access the lecture Powerpoint slides, on-line practice tests, links to related reading, and tutorial support material.

Your academic development is supported from year 1 through to year 4 by an assigned personal tutor, who acts as adviser and mentor throughout your University career.

Our Science Teaching Hub opened in 2022, providing students with advanced analytical tools and flexible, safe laboratory spaces. Students have access to research grade equipment in a digitally focussed, paperless environment. The open plan layout offers a fantastic opportunity for interdisciplinary and collaborative teaching.

Find out more: www.abdn.ac.uk/sth

Undergraduate degree programmes

Biomedical Science Degrees

Human physiology, form and function, health and disease, across the span of medical biosciences.

- Applied Sports Science
- Biomedical Sciences
- Exercise and Health Science
- Human Embryology & Developmental Biology
- Immunology & Pharmacology
- Neuroscience with Psychology
- Pharmacology
- Physiology
- Sports & Exercise Science

Molecular Medical Science Degrees

A range of cell and molecular biology subjects taught in the context of human health and disease.

- Biochemistry
- Biotechnology
- Genetics, Genetics (Immunology)
- Immunology
- Microbiology
- Molecular Biology

Visit our online prospectus to learn more about our degrees:

www.abdn.ac.uk/study/undergraduate



→ **7TH IN THE UK
FOR SPORTS SCIENCE**

The Times & Sunday Times Good University Guide 2024

Combining teaching with research excellence

Research led teaching ensures that our students are being taught by those at the forefront of scientific research and who are passionate about their subject area.



Dr Derryck Shewan

is a Senior Lecturer and a prominent member of our teaching staff. You will see him from day one as he helps oversee student induction and is involved in the teaching of Introduction to Medical Sciences. He coordinates the Skills Courses in 2nd year and Honours projects in 4th year. He is also the Programme Co-ordinator of Neuroscience with Psychology and the Lead for Student Support for undergraduate Medical Science students.



Professor John Barrow

started his scientific career right here in Aberdeen as an undergraduate Biochemistry student. Now as a Professor of Biochemistry and Molecular Biology Education, John is involved in all aspects of undergraduate teaching, including the first year Medical Science courses.



Professor Steve Tucker

is a Professor of Pharmacology Education and is involved in teaching all levels from 1st year through to Masters level, where he teaches many aspects of Physiology and his beloved Pharmacology. Across your 1st year courses, Steve will teach you about a variety of topics including the pharmacology of drugs such as cannabis, morphine and Viagra!



Dr Isabel Crane

is a Senior Lecturer in Immunology. She teaches various aspects of immunology from first year to Masters level and co-ordinates teaching at course and programme level. Her key research interests are in how the movement of immune cells is regulated so that they can function most efficiently.



Dr Flora Gröning

is a Senior Lecturer in Anatomy and Programme Co-ordinator for our BSc Biomedical Sciences (Anatomy) degree. Her research interests include the application of 3D modelling to biomechanics and musculoskeletal research. Flora also leads the development of digital 3D Anatomy learning tools at the University.

Dr Donna MacCallum

is the BSc Programme Lead and heads up the teaching team delivering the BSc medical sciences degree programmes. She is a microbiologist by training and has published extensively on how fungi cause disease and how we can best treat those infections. Donna is also an experienced teacher, teaching and assessing at all levels.



Dr Jenny Gregory

is a Senior Lecturer in Physiology and Sports Science. Her main research interests lie in understanding how bone shape and structure changes with exercise, disease and disuse, particularly using biomedical image analysis techniques.



Careers and employability

All our degree programmes offer students the opportunity to undertake a year's work placement. The range of degrees within the Medical Science disciplines prepare you to follow a broad range of careers relating to medicine and the life sciences.

Preparing you for industry

Employers now expect an impressive list of skills, knowledge and experience in their graduate recruits. They welcome 'transferable skills' acquired during a work placement, such as communication, numeracy, use of IT, group work and time management.



Students are placed in an industrial, commercial or research environment where they will obtain a breadth of practical experience to complement their degree programme.

We currently have links with a number of different companies and have recently placed students in companies such as Pfizer, Novartis, GlaxoSmithKline, AstraZeneca and NIMR as well as a number of smaller companies in the UK and abroad.

Career pathways

The quality of your training will permit you to take advantage of international career opportunities in research and development. Some pursue these within Universities and Research Institutes, while others find employment in the biomedical research, biotechnology and pharmaceutical industries. Our Bio-business courses teach you how biology links directly to commerce which may inspire you to set up your own business.

But not all Medical Scientists are to be found in laboratories. Others choose further study in related areas such as medicine, dentistry, veterinary science, dietetics and physiotherapy. Some may be found teaching in schools, inspiring the next generation of scientists, or in courts of law, arguing over complex patent cases.

An understanding of the Medical Sciences combined with your wider graduate skills will give you an additional broad choice of potential career options such as bioethics, journalism and health economics. For graduates with a Sport & Exercise Science background there are a number of career options available such as coaches, trainers, managers, physiotherapists and other health related professions concerned with fitness and nutrition.



Morven Hollick
MSci Molecular Biology
with Industrial Placement



The courses I have studied have given me a broad foundation in medical science, whilst also allowing me to focus more on certain topics in lab classes and essays. Using the skills developed in the first three years of my degree, I went on to complete my placement in the Aberdeen Cancer Centre studying the immune microenvironment of breast cancer.

Thomas Binns
MSci Neuroscience with
Psychology with Industrial Placement



I enjoyed being able to get involved in scientific research. This was possible as part of my final-year research project at the university, where there were a huge number of projects from all areas of the medical sciences to choose from. Additionally, I spent a year working in a neuroscience lab at a university in Germany for my Industrial Placement. For this, I received a lot of support from the university.



10 reasons to choose Aberdeen

01 The academic strength you would expect from a 500 year old university – yet right at the forefront for careers in the 21st century

A thriving, cosmopolitan community with students from 130 countries set within a beautiful, historic campus that has seen five Nobel Prizes.

02 Choice and flexibility

Unique programme options with industrial placements and the opportunity to graduate with a Masters (MSci).

03 A proven track record for employment, with the best headstart your career can get

Our experience and connections can help secure that all-important first step on the ladder to a successful career. We offer highly relevant experience in bio-business, a final year research project and optional industrial placement year.

04 Degrees which are recognised and respected worldwide

We are ranked 7th in the UK for Biomedical Sciences (Complete University Guide 2024).

05 Opportunities to develop yourself and your interests

Not only academic qualifications to rival the best, but also personal, communication and teamwork skills to make you an all-round achiever. Some of our students have participated in the European Space Agency Human Space Physiology Training Course.

06 The very best learning resources

We pride ourselves on providing state-of-the-art learning resources and students have the opportunity to experience working in a research focussed environment. We are especially proud of our facilities at the new Science Teaching Hub as well as facilities at the Aberdeen Sports Village.



07 **A supportive community**
A friendly campus across two sites; we will do everything we can to help you quickly feel at home. We have excellent student-centered services to ensure you have access to all the support and guidance you might need - academic, personal, medical or financial.

08 **First class accommodation**
All new students are guaranteed a place in student accommodation, either on the campus or close by - so no need to set the alarm too early!

09 **A buzzing, friendly city that has it all**
Aberdeen is everything a student city should be and more! Historic, international, fashionable and friendly.

10 **We're on the map!**
Aberdeen is probably closer than you think. Affordable and regular air, rail and bus connections will get you around Scotland, the UK and further afield in no time.



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